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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/759,279	01/20/2004	Shinichi Ishizuka	Q79062	6849
23373	7590	01/23/2006	EXAMINER	
SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			PIZIALI, JEFFREY J	
			ART UNIT	PAPER NUMBER
			2673	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/759,279	Applicant(s) ISHIZUKA, SHINICHI	
	Examiner Jeff Piziali	Art Unit 2673	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 October 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 09/377,405.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in parent Application No. 09/377,405, filed on 20 August 1999.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-18 are rejected under 35 U.S.C. 102(a) and 35 U.S.C. 102(e) as being anticipated by Norman et al (US 5,719,589 A).

Regarding claim 1, Norman discloses a driving method of a light-emitting display [Fig. 1; 10] in which light-emitting elements are connected to intersections of positive electrode lines [Fig. 3; 14] and negative electrode lines [Fig. 3; 13] arranged in a matrix, either one of said positive electrode lines or said negative electrode lines are employed as scan lines [Fig. 3; 13] with the other employed as drive lines [Fig. 3; 14], said driving method comprising; while scanning [Fig. 3; 42] the scan lines, connecting [Fig. 3; 36] drive sources [Fig. 3; 37] to desired

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drive lines in synchronization with the scanning, whereby allowing the light-emitting elements connected to the intersections of the scan lines and drive lines to emit light; and during a reset period after a scan period for scanning an arbitrary scan line is complete and before scanning the following scan line is started, applying a first reset voltage [Fig. 3; V_R] to all of said scan lines and applying a second reset voltage [Fig. 3; V_C] that is greater than said first reset voltage to all of said drive lines (see Column 5, Line 46 - Column 8, Line 53).

Regarding claim 2, Norman discloses the difference between said second reset voltage and said first voltage is set to be lower than the light emission threshold voltage of said light-emitting element (see Column 7, Lines 3-18).

Regarding claim 3, Norman discloses said drive lines are connectable to either said drive source or a second reset voltage source [Fig. 3; V_C] for providing said second reset voltage, said scan lines are connectable to either a first reset voltage source [Fig. 3; V_R] for providing said first reset voltage or a reverse bias voltage source [Fig. 3; 45, 48] for providing a predetermined reverse bias potential (see Column 7, Line 3 - Column 8, Line 53).

Regarding claim 4, this claim is rejected by the reasoning applied in rejecting claim 3.

Regarding claim 5, Norman discloses said first reset voltage source provides a ground potential (see Column 7, Lines 3-34 and Column 8, Lines 1-36).

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Regarding claim 6, this claim is rejected by the reasoning applied in rejecting claim 5.

Regarding claim 7, Norman discloses said reverse bias voltage sources are to have a same voltage as the voltage value determined by subtracting said second reset voltage from light emission specifying voltages of light-emitting elements (see Column 8, Lines 1-36).

Regarding claim 8, this claim is rejected by the reasoning applied in rejecting claim 7.

Regarding claim 9, this claim is rejected by the reasoning applied in rejecting claim 7.

Regarding claim 10, this claim is rejected by the reasoning applied in rejecting claim 7.

Regarding claim 11, Norman discloses said drive lines are connectable to either one of said drive sources, the second reset voltage source for providing said second reset voltage, or a grounding means for providing a ground potential, said scan lines are connectable to either the first reset voltage source for providing said first reset potential or the reverse bias voltage source for providing a predetermined reverse bias potential (see Column 7, Line 3 - Column 8, Line 53).

Regarding claim 12, this claim is rejected by the reasoning applied in rejecting claim 11.

Regarding claim 13, this claim is rejected by the reasoning applied in rejecting claim 5.

Regarding claim 14, this claim is rejected by the reasoning applied in rejecting claim 5.

Regarding claim 15, Norman discloses said reverse bias voltage source has a same voltage as the light emission specifying voltage of light-emitting elements (see Column 7, Lines 3-18).

Regarding claim 16, this claim is rejected by the reasoning applied in rejecting claim 15.

Regarding claim 17, this claim is rejected by the reasoning applied in rejecting claim 15.

Regarding claim 18, this claim is rejected by the reasoning applied in rejecting claim 15.

Response to Arguments

4. Applicant's arguments filed 28 October 2005 have been fully considered but they are not persuasive. The applicant contends the cited prior art of Norman et al (US 5,719,589 A) neglects teaching a second voltage applied to drive lines higher than a first voltage applied to scan lines (see Page 8 of the Amendment submitted 28 October 2005). However, the examiner respectfully disagrees. Norman explicitly discloses periodically applying a first voltage [Fig. 3; V_R -- i.e. "row reset potential"] to scan lines/rows [Fig. 3; 13], and applying a second voltage [Fig. 3; V_C -- i.e. "column reset potential"] to drive lines/column [Fig. 3; 14] (see Column 6, Line 34 - Column 7, Line 18). Norman explains the aforementioned row reset potential [Fig. 3; V_R] may be an open terminal/circuit (see Column 6, Lines 58-61). Therefore, any non-zero voltage could be used as

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Norman's column rest potential [Fig. 3; V_C] and read on the instantly claimed subject matter, and wherein -33 volts is given as one non-limiting example by Norman (see Column 8, Line 15). Furthermore, although Norman prefers using rest potentials to place unselected light emitting diodes [Fig. 3; 15] in a "reverse bias condition" (see Column 7, Line 30), Norman makes it plain the invention's only limiting factor is "the column rest potential being below a level where individual light emitting diodes of the plurality of light emitting diodes will turn ON" (see Column 10, Lines 1-4). Therefore, taking the row rest potential again to be an open terminal/circuit, Norman's apparatus provides full functionality in an alternate embodiment (compared to the aforementioned $V_C = -33$ volts example) wherein the column rest potential is any positive voltage that doesn't turn on the light emitting diodes.

The applicant also contends Norman fails to describe a reset period after completion of a scan period and before the start of the scanning of a following line (see Page 9 of the Amendment submitted 28 October 2005). However, again, the examiner respectfully disagrees. In one example, after scanning the first row [Fig. 3; Row #1], should the video data input signal [Fig. 1; 30] ever be lost or disconnected [an unfortunately inherent fact of life for all practical purposes of transmitting video/image data], there would be of course no selected rows [Fig. 3; 13] or columns [Fig. 3; 14], and all the LEDs [Fig. 3; 15] would necessarily be set to a reset state, as instantly claimed. In another related example, Norman clearly discloses scanning the first row [Fig. 3; Row #1], and then during a "reset period" [for instance, while scanning the second row -- i.e. Row #2] after a scan period for scanning an arbitrary scan line [Fig. 3; Row #1] is complete and before scanning the following scan line [Fig. 3; Row #3] is started, applying

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a first reset voltage [Fig. 3; V_R] to all of said scan lines [Fig. 3; Row #1 and Row #3] (see Column 7, Lines 35-52).

By such reasoning, rejection of the claims is deemed necessary, proper, and thereby maintained at this time.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeff Piziali whose telephone number is (571) 272-7678. The examiner can normally be reached on Monday - Friday (6:30AM - 3PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached on (571) 272-7681. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



12 January 2006



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